

Dr. PILZ

# MODEL OF THE EYE

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## EAR NOSE

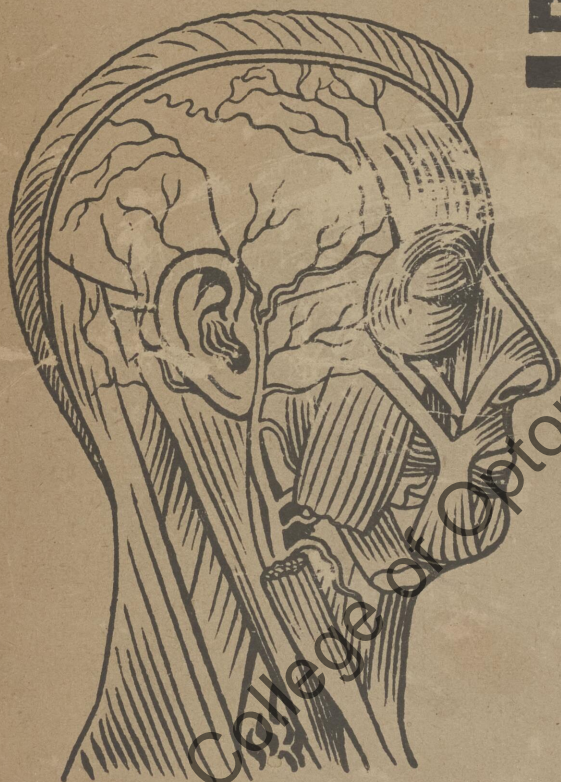
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AND

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## THROAT

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Dr. Pilz  
Anatomical Model.

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## Introduction.

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The Dr. Pilz Anatomical Model of the Eye, Ear, Nose and Throat is published for the purpose of supplying eye, ear, nose and throat specialists, as well as optometrists, with practical, complete, scientific and convenient reference charts.

Over 270 anatomical parts are named and pictured in the folding layers which reproduce in natural form and color each anatomical structure of the eye, ear, nose and throat.

This latest publication in our well-known series of Anatomical Models constitutes a desirable and effective addition to the equipment of oculist, physician and optometrist for reference and demonstration. A moment's reference to the chart will help to recall important facts of anatomy which may have happened to escape the memory.

Because it presents pictorially all the parts of the organs of sight, hearing, of smell and taste, the student will find it of inestimable value for visualizing the relationship of the various structures, both in detail and as a whole.

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"   
Anatomical Model  
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Eye, Ear, Nose  
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## Explanation of the Eye.

### Eyelids.

- |   |   |
|---|---|
| 1. Upper eyelid.                        | 9. Tarsus superior.                           |
| 2. Lower eyelid.                        | 10. Tarsus inferior.                          |
| 3. Eyebrow.                             | 11. Medial palpebral ligament.                |
| 4. Loose areolar tissue.                | 12. Lateral palpebral raphe.                  |
| 5. Internal canthus.                    | 13. Palpebral conjunctiva.                    |
| 6. External canthus.                    | 14. Caruncula.                                |
| 7. Tarsal glands (Meibomian glands).    | 15. Orbital portion of orbicularis oculi.     |
| 8. Opening of ducts from tarsal glands. | 15a. Palpebral portion of orbicularis muscle. |

### Lachrymal Organs.

- |                           |   |
|---------------------------|---|
| 16. Papillae lachrymales. | 20. Nasolachrymal duct.                     |
| 17. Punctum lachrymale.   | 20a. Lachrymal gland.                       |
| 18. Lachrymal duct.       | 20b. Opening of ducts from lachrymal gland. |
| 19. Lachrymal sac.        |   |

### Eye Ball.

- |   |  |
|---|--|
| 21. Sclera.   | 34. Posterior surface of iris.                       |
| 22. Inner surface of sclera.                          | 35. Radiating fibres of iris which dilate the pupil. |
| 23. Cornea.   | 36. Ciliary processes.                               |
| 24. Sclero-corneal margin.                            | 37. Ora serrata.                                     |
| 25. Rectus medialis muscle.                           | 38. Crystalline lens.                                |
| 26. Rectus inferior muscle.                           | 39. Capsule of lens.                                 |
| 27. Rectus lateralis muscle.                          | 40. Retina.  |
| 28. Rectus superior muscle.                           | 41. Optic nerve disc.                                |
| 29. Canal of Schlemm.                                 | 42. Upper branch of arteria centralis retinae.       |
| 30. Anterior portion of choroid.                      | 43. Macula lutea.                                    |
| 31. Anterior and long ciliary arteries.               | 44. Internal layer of choroid.                       |
| 32. Anterior surface of iris.                         | 45. Lamina cribosa.                                  |
| 33. Circular fibres of iris which contract the pupil. | 46. Pigment layer of retina.                         |

- 47. Lamina vasculosa of choroid.
- 48. Lamina chorio-capillaris.
- 49. Venae vorticosae.
- 50. Sclera.
- 51. Sheath of optic nerve.
- 52. Long posterior ciliary arteries.

- 53. Short posterior ciliary arteries.
- 54. Ciliary nerves.
- 55. Superior oblique muscle.
- 56. Inferior oblique muscle.
- 57. Entrance of optic nerve in eye ball.
- 57a. Central artery and vein of retina.

### Eye Socket.

- 58. Frontal bone.
- 59. Sphenoid bone.
- 60. Zygomatic bone.
- 61. Superior maxillary bone.
- 62. Palatine bone.
- 63. Lachrymal bone.
- 64. Ethmoid bone.
- 65. Supra orbital margin.
- 66. Infra orbital margin.
- 67. Supra orbital notch.
- 68. Infra orbital foramen.
- 69. Ethmoid foramen.
- 70. Canal for lachrymal duct.

- 71. Lachrymal fossa for lachrymal gland.
- 72. Trochlea foramen for pulley of superior oblique muscle.
- 73. Optic foramen.
- 74. Superior orbital fissure.
- 75. Inferior orbital fissure.
- 76. Root of rectus medialis muscle.
- 77. " " " inferior muscle.
- 78. " " " lateralis muscle.
- 79. " " " superior muscle.
- 80. " " levator palpebrae superioris muscle.
- 81. Root of superior oblique muscle.

### Facial Muscles.

- 15. Orbicularis palpebrarum.
- 82. Frontalis muscle.
- 83. Temporalis muscle.
- 84. Procerus muscle.
- 85. Nasalis muscle.
- 86. Angular head of quadratus labii superioris muscle.

- 87. Medial head of quadratus labii superioris muscle.
- 88. Caninus muscle.
- 89. Zygomatic head of quadratus labii superioris muscle.

## Explanation of the Larynx.

### The Throat Muscles which are connected with the Larynx.

- |                         |                                      |
|-------------------------|--------------------------------------|
| 1. Mandible bone.       | 9. Geniohyoideus muscle.             |
| 2. Hyoid bone.          | 10. Thyrohyoideus muscle.            |
| 3. Thyroid cartilage.   | 11. Hyothyroid membrane.             |
| 4. Cricoid cartilage.   | 12. Cricothyroid ligament.           |
| 5. Trachea.             | 13. Cricothyroideus muscle.          |
| 6. Sternum.             | 14. Thyroid gland.                   |
| 7. 1st ribs.            | 15. Sternothyroideus muscle.         |
| 8. Mylohyoideus muscle. | 16. Horizontal muscle of the throat. |

### Cross-Section of the Larynx with the insertion of a throat mirror.

- |                               |                                     |
|-------------------------------|-------------------------------------|
| 17. Superior nasal concha.    | 32. Mandible bone.                  |
| 18. Middle nasal concha.      | 33. Hyoid bone.                     |
| 19. Inferior nasal concha.    | 34. Middle thyrohyoid membrane.     |
| 20. Hard palate.              | 35. Thyroid cartilage.              |
| 21. Incisive canal.           | 36. Epiglottis.                     |
| 22. Alveolar process.         | 37. Corniculate cartilage.          |
| 23. Tongue.                   | 38. Arytenoid cartilage.            |
| 24. Soft palate.              | 39. Ventricular fold (false cords). |
| 25. Orifice of auditory tube. | 40. Vocal fold.                     |
| 26. Palatine tonsil.          | 41. Ventricle of larynx.            |
| 27. Glosso palatine arch.     | 42. Cricoid cartilage.              |
| 28. Pharyngo palatine arch.   | 43. Trachea.                        |
| 29. Upper lip.                | 44. Thyroid gland.                  |
| 30. Lower lip.                | 45. Oesophagus.                     |
| 31. Laryngeal mirror.         |                                     |

### Front View of Muscles of Interior Part of the Mouth.

- |  |  |
|--|--|
| 46. Hard palate.                         | 52. Levator veli palatine muscle.                      |
| 47. Mandible bone.                       | 53. Uvula.   |
| 48. Superior cornu of thyroid cartilage. | 54. Constrictor Pharyngis superioris muscle.           |
| 49. Thyroid cartilage.                   | 55. Constrictor Pharyngis middle and inferior muscles. |
| 50. Posterior nasal cartilage.           |  |
| 51. Pharyngo palatine muscle.            |  |

### Rear View of Muscles of the Interior of the Mouth.

- |   |   |
|---|---|
| 56. Sphenoid bone.                                | 65. Levator veli palatine muscle.       |
| 57. Petrous and mastoid portion of temporal bone. | 66. Pharyngo palatine muscle.           |
| 58. Cartilage of auditory tube.                   | 67. Uvula.                              |
| 59. Nasal septum.                                 | 68. Tongue.                             |
| 60. Middle and inferior nasal conchae.            | 69. Epiglottis.                         |
| 61. Mandible bone.                                | 70. Superior horn of thyroid cartilage. |
| 62. Styloid process of temporal bone.             | 71. Greater horn of hyoid bone.         |
| 63. Tensor veli palatine muscle.                  | 72. Larynx.                             |
| 64. Musculus uvulae.                              | 73. Trachea.                            |
|   | 74. Oesophagus.                         |

### Front View of Larynx.

- |                                     |  |
|-------------------------------------|--|
| 75. Hyoid bone.                     | 80. Thyrohyoideus muscle.              |
| 76. Thyroid cartilage.              | 81. Sternohyoideus muscle.             |
| 77. Cricoid cartilage.              | 82. Middle hyothyroid membrane.        |
| 78. Cartilaginous rings of trachea. | 83. Middle cricothyroid ligament.      |
| 79. Sternohyoideus muscle.          | 84. Superior cornu of hyoid cartilage. |

### Rear View of Throat after elimination of the muscles, cartilage and sinews.

- |  |                                       |
|--|---------------------------------------|
| 85. Epiglottis.                        | 90. Cricoid cartilage.                |
| 86. Superior cornu of hyoid cartilage. | 91. Inferior horn of hyoid cartilage. |
| 87. Cuneiform cartilage.               | 92. Cartilaginous rings of trachea.   |
| 88. Corniculate cartilage.             | 93. Membranous portions of trachea.   |
| 89. Arytaenoid cartilage.              | 94. Conus elasticus membrane.         |

### Interior of the Nose seen through the Mouth.

- |                               |                            |
|-------------------------------|----------------------------|
| 95. Roof of pharynx.          | 99. Torus or cushion.      |
| 96. Nasal conchae.            | 100. Fossa of Rosenmüller. |
| 97. Nasal septum.             | 101. Palatine velum.       |
| 98. Opening of auditory tube. | 102. Uvula.                |

### View of the Larynx during Normal Respiration.

- |                                       |   |
|---------------------------------------|---|
| 103. Epiglottis.                      | 109. Cuneiform.   |
| 104. Pyriform sinus.                  | 110. Corniculate cartilage.                             |
| 105. Glottis.                         | 111. Adduction of vocal folds during high pitch note.   |
| 106. Ventricular folds (false cords). | 112. Abduction of vocal folds as in forced inspiration. |
| 107. Vocal fold.                      |   |
| 108. Arytaenoid cartilage.            |   |

## Explanation of the Ear.

### Vertical cut through the External Ear.

- |                                |                                  |
|--------------------------------|----------------------------------|
| 1. Auricular.                  | 8. Superior semicircular canal.  |
| 2. Concha.                     | 9. Posterior semicircular canal. |
| 3. External acoustic meatus.   | 10. Vestibulae fenestra.         |
| 4. Temporal bone.              | 11. Cochlea.                     |
| 5. Styloid process.            | 12. Auditory tube.               |
| 6. Tympanic membrane.          | 13. Internal carotid artery.     |
| 7. Lateral semicircular canal. |                                  |

### View to include all parts of the ear, some out of position.

- |                                     |                                    |
|-------------------------------------|------------------------------------|
| 14. Auricular.                      | 34. Malleus:                       |
| 15. External auditory meatus.       | a) head                            |
| 16. Tympanic membrane.              | b) neck                            |
| 17. Tympanic cavity.                | c) manubrium                       |
| 18. Fenestra ovalis.                | d) anterior process                |
| 19. Fenestra rotunda.               | e) lateral process.                |
| 20. Auditory ossicles.              | 35. Incus:                         |
| 21. Auditory tube.                  | a) body                            |
| 22. Osseous semicircular canal.     | b) short crus                      |
| 23. Apex of cochlea.                | c) lenticular process.             |
| 24. Acoustic nerve.                 | 36. Stapes:                        |
| 25. Vestibular nerve.               | a) head                            |
| 26. Cochlea nerve.                  | b) crus                            |
| 27. Lamina spiralis ossea.          | c) base.                           |
| 28. Scala vestibulae.               | 37. a) cochlea                     |
| 29. Scala tympani.                  | b) vestibule                       |
| 30. Membranous labyrinth — Utricle. | c) vestibulae fenestra.            |
| 31. Membranous labyrinth saccule.   | d) cochlea fenestra.               |
| 32. Membranous semicircular canal.  | e) superior semicircular canal.    |
| 33. Ampulla.                        | f) lateral semicircular canal.     |
|                                     | g) posterior semicircular canal.   |
|                                     | 38. Cross section of internal ear. |

## Explanation of the Nose.

- |                                     |  |
|-------------------------------------|--|
| 1. Frontal sinus.                   | 16. Naso-palatine nerve.                     |
| 2. Nasal bone.                      | 17. Perpendicular plate of ethmoid.          |
| 3. Upper lip.                       | 18. Vomer.                                   |
| 4. Hard palate.                     | 19. Cartilage of nasal septum.               |
| 5. Superior concha.                 | 20. Sphenoid sinus.                          |
| 6. Middle concha.                   | 21. Superior nasal meatus.                   |
| 7. Inferior concha.                 | 22. Middle nasal meatus.                     |
| 8. Mouth.                           | 23. Inferior nasal meatus.                   |
| 9. Pharynx.                         | 24. Lateral cartilaginous plate.             |
| 10. Epiglottis.                     | 25. Greater alar cartilage.                  |
| 11. Tongue.                         | 26. Maxilla.                                 |
| 12. Lower lip.                      | 27. Mandible.                                |
| 13. Mandible.                       | 28. Orbit.                                   |
| 14. Filaments from olfactory nerve. | 29. Medial pterygoid plate of sphenoid bone. |
| 15. Naso-ciliary nerve.             |  |

## Other Publications.

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Pilz Life-size Male Manikin.

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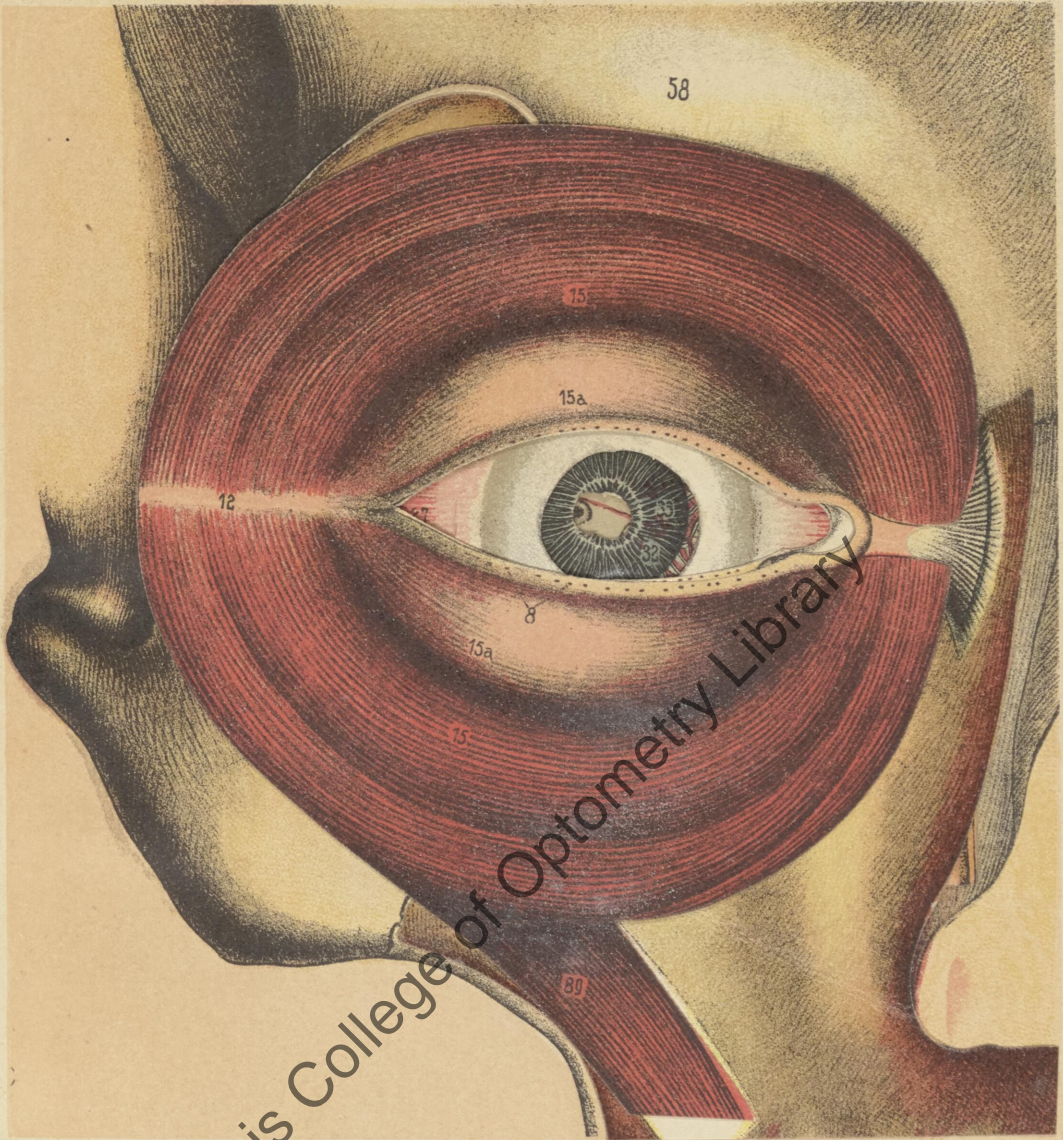


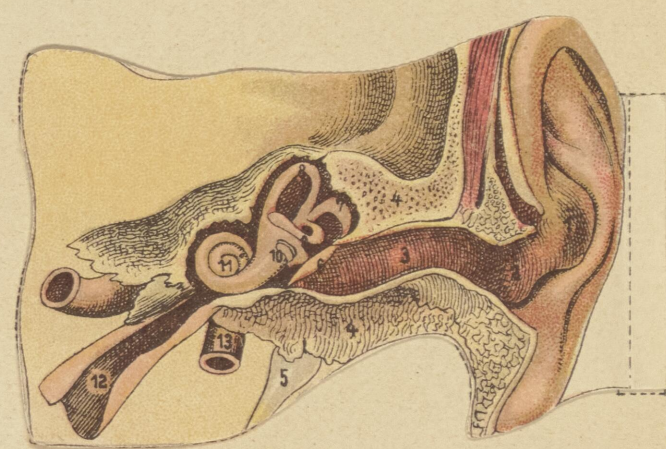
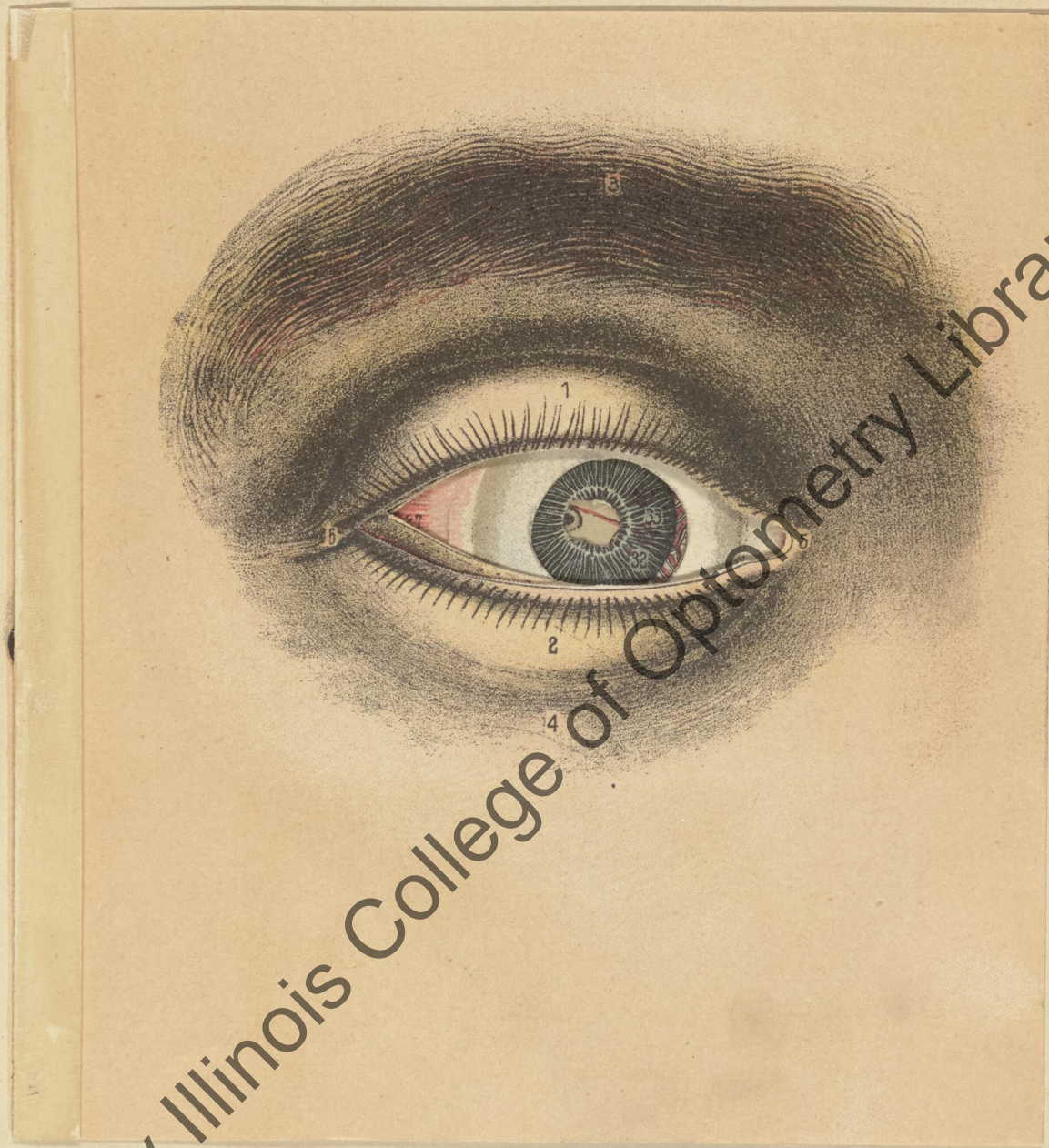
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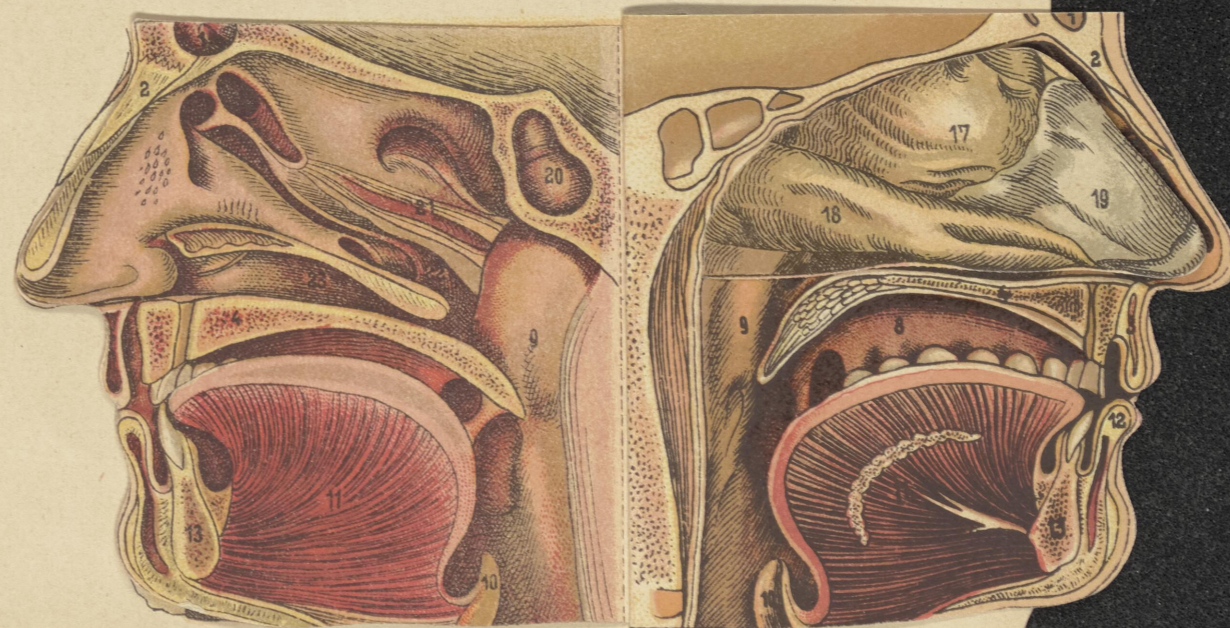
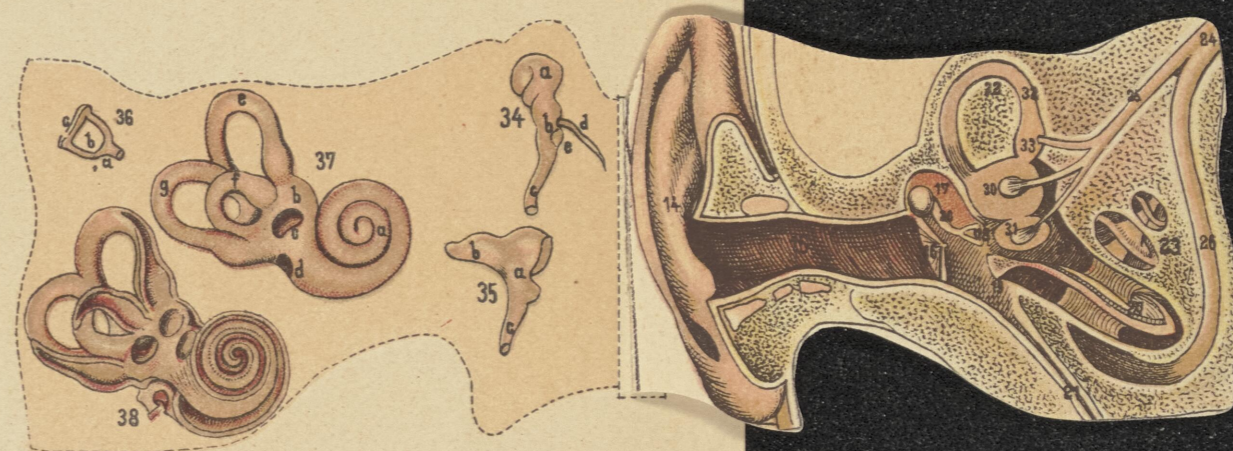
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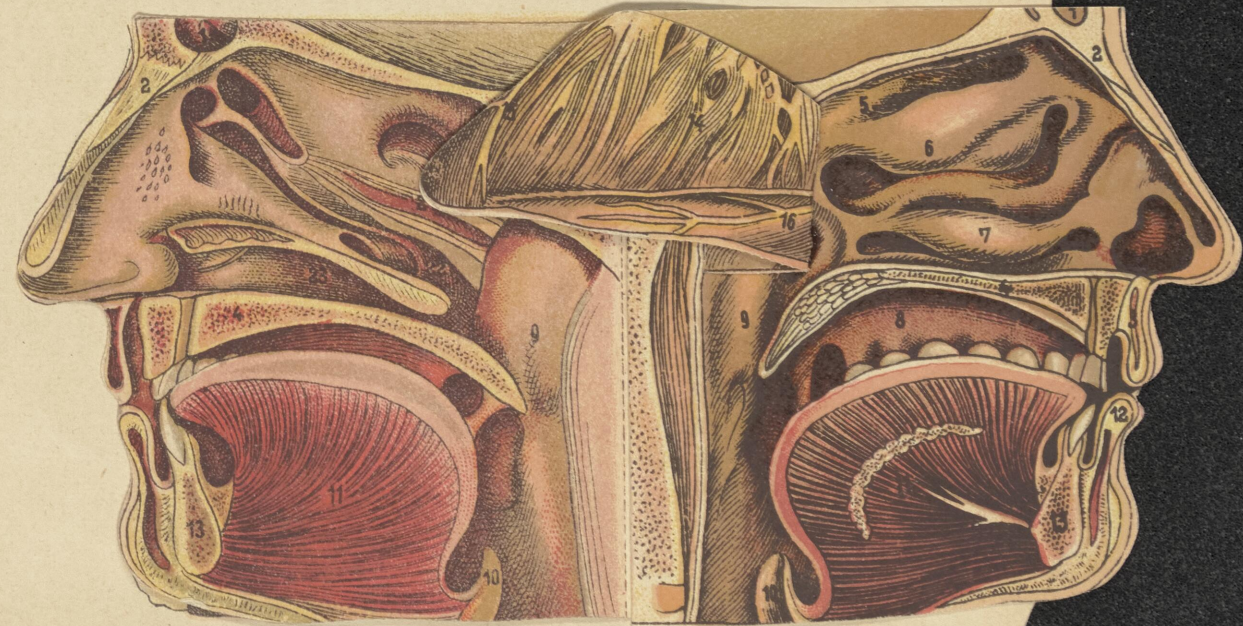
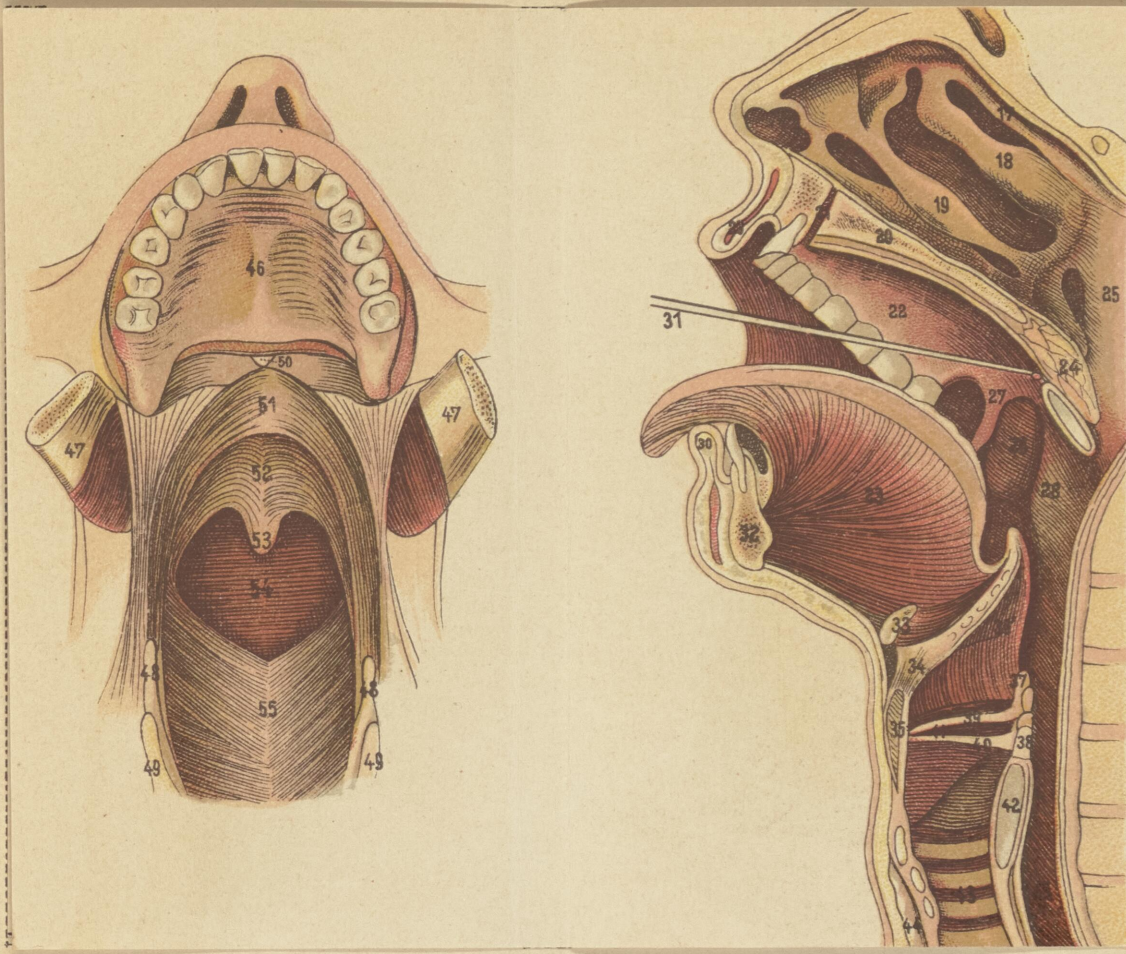
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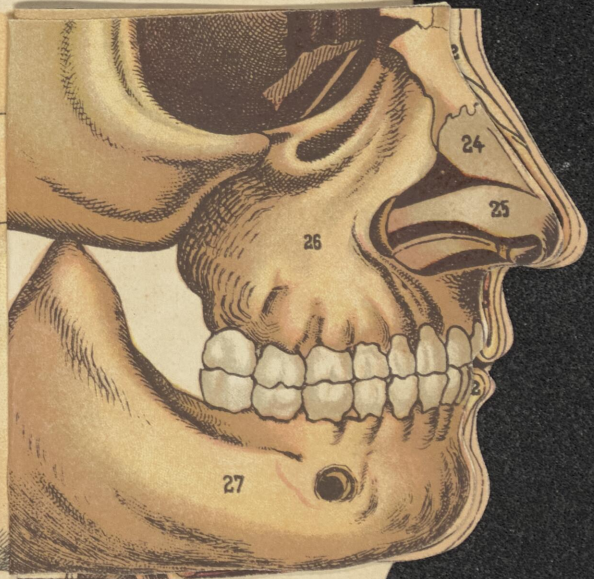
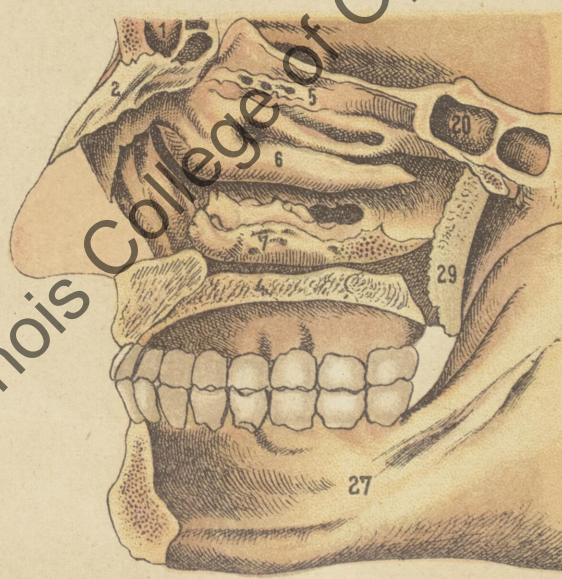
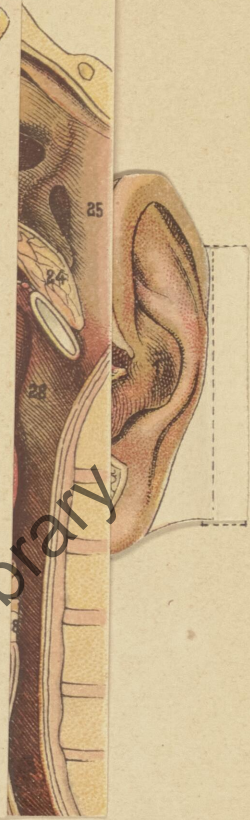
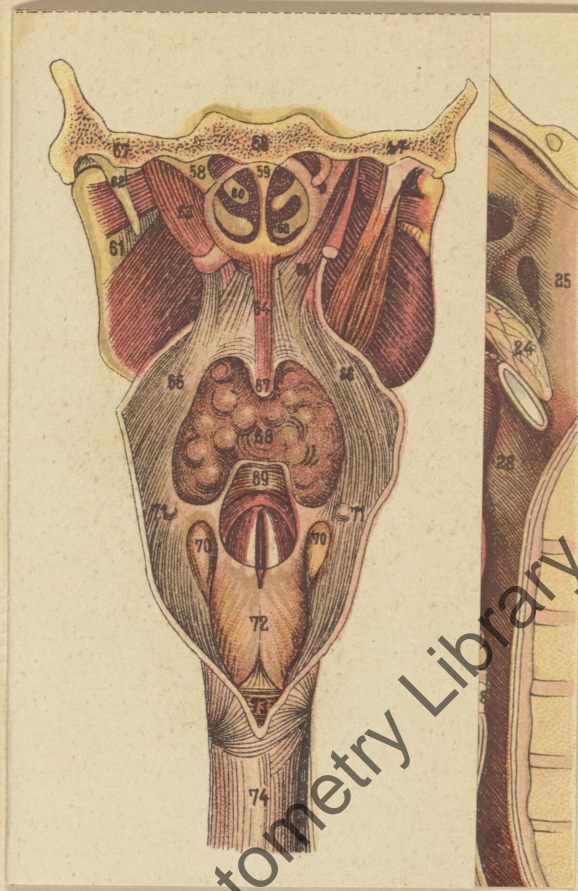
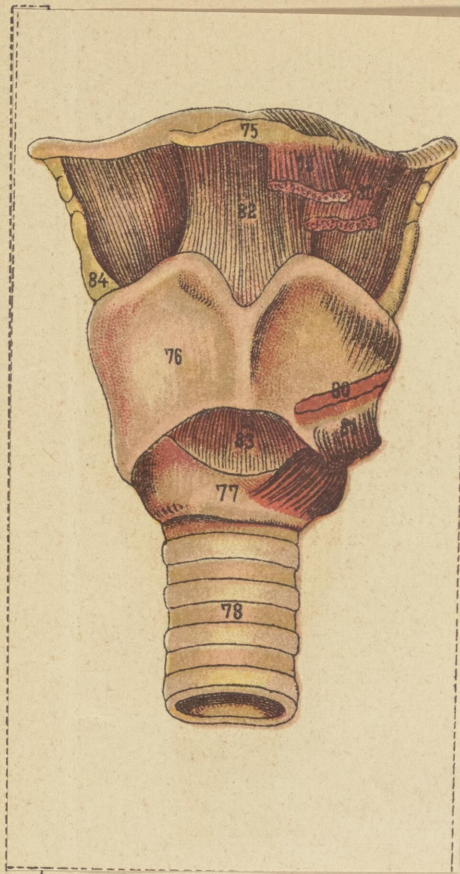
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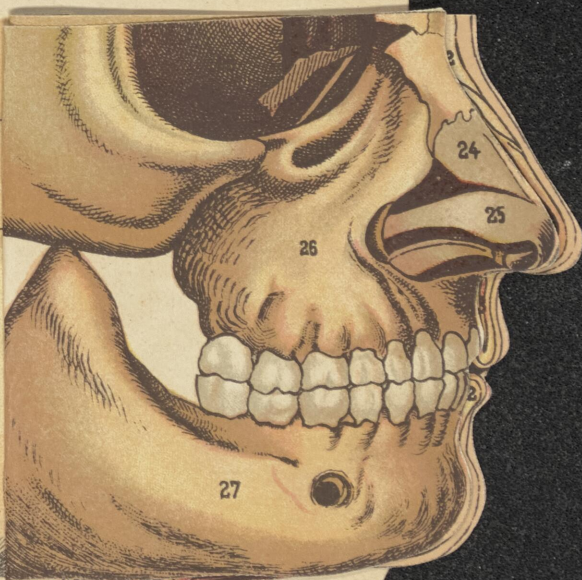












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